

REVIEWS.

ART. XIII.—*The Pathology and Treatment of Stricture of the Urethra, both in the male and female; being the Treatise for which the Jacksonian Prize for the year 1852 was awarded by the College of Surgeons of England.* By HENRY THOMPSON, F. R. C. S., M. B. Lond., &c. &c. London: John Churchill, 1854. 8vo. pp. 424.

It is not often that a prize essay succeeds so well as has this excellent monograph, in sustaining, among all classes of professional inquirers, the award of its official sponsors. The reputation of Mr. Thompson's work, as in most respects the best treatise on the subject in the English language, is already too well established to require further commendation at this time in any quarter. Our purpose, therefore, is not to eulogize it but to endeavour, in a cursory sketch of some of its most interesting features, to afford our readers a tolerable notion of the advantage to be gained by a closer study of its pages.

To give an idea, at the outset, of the comprehensive and thorough manner in which our author has acquitted himself of his arduous task, we may here refer to the plan of arrangement adopted by him and described in the preface.

The possession of manual dexterity and a practical familiarity with the best mechanical appliances are, he justly tells us, not the only essential requisites in the successful treatment of stricture. An intimate acquaintance with the pathology of the entire genito-urinary system, with its sympathetic and functional relations in health and disease in all directions, is no less indispensable. He does not pretend to consider *in extenso*, within the compass of a single volume, the various topics suggested by the broad view thus taken of the question. Voluminous and rich in valuable matter, as his production obviously is, he would seem to regard it as presenting only a brief review of the most important considerations involved in the study of the subject. Be this as it may, our own impression is that few students and practitioners, however great their reading and practical experience, could rise from a careful examination of his clear, ample, and impartial expositions, without having acquired a material addition to their previous stock of knowledge in relation to the entire subject of inquiry.

In the first place: Mr. Thompson has freely and carefully collected from standard authorities in regard to all important points, quoting the writers' words in each case, and making the direct reference to page and edition of each particular citation.

Secondly: Original researches have been made whenever practicable, and their results compared with those of previous similar investigations by other hands.

"Thus the Chapter on the Pathological Anatomy of Stricture is mainly a digest of the facts now exhibited in the principal museums belonging to the medical schools of London, Edinburgh, and Paris, in which each preparation has been individually examined by himself. A reference is made in the text

to various specimens of importance, and an account of these is placed in the appendix, for the purpose of facilitating the student's acquaintance with unquestionable examples and illustrations of the facts stated." (Pp. 8, 9.)

Thirdly: Under the head of "reported cases," a large number of hitherto unpublished observations are collected for the purpose of illustrating numerous points connected with the natural history and treatment of stricture. Following these is a "table of cases," 220 in number, "condensed from fully reported cases only, upon the aggregate of which have been founded, in a great measure, the chapters on 'the symptoms,' and on the 'causes of stricture.'" (P. 9.)

Then, in connection with the much mooted question of perineal section, certain data required for its discussion at full length are presented "under the head of 'outlines of cases,' which are merely very short histories containing the principal facts bearing on this question." (P. 9.)

Lastly:—

"No pains have been spared in order to develop the best practical mode of conveying, as far as this can be done on paper, sound information respecting the anatomical relations of the healthy and diseased urethra." "It will be seen," continues he, "that a great number of bodies have been examined to supply the facts related. One, out of several illustrative preparations which were sent into the College of Surgeons with the Essay, contained portions of the corpus spongiosum from not less than twelve bodies, to illustrate a point in its anatomy referred to at pages 38-41." (P. 10.)

On looking over the list of contents, we find them to be divided into twelve chapters, occupying three hundred and eighteen pages; and an appendix, already alluded to, of six valuable notes, which, with the index, take up the remaining hundred pages. These chapters are furnished with marginal headings; a means of ready reference of so much utility, and so rare, unfortunately, in medical books, that we consider the author entitled to special thanks on their account alone.

Chapter I., "On the Anatomy and Physiology of the Male Urethra," is one of the longest and best of the book. It yields to none of them in interest and character, and would stamp its author as a profound investigator, even were it the only original portion of his treatise. The descriptions of previous anatomists are diligently and faithfully compared with the results of his own "repeated dissections and researches into certain conditions of the organ, which are illustrated in the tables and drawings accompanying this volume."

Comparing his measurements of the male urethra after death with those of Mr. Briggs during life, he calls attention to the difference in length under the different conditions of life and death.

"It will, therefore, be borne in mind that these two measurements of $7\frac{1}{4}$ inches, and $8\frac{1}{2}$ inches, respectively, relate to the average length of the urethra in the two conditions of life and death. That this difference exists, it will be particularly important to recollect since all accurate researches into the pathological anatomy of stricture are, of necessity, confined to an observation of the parts *after death*; while in relation to treatment, the measurement *during life* is that which alone must be remembered." (P. 4.)

In relation to width, or capacity for extension of the urethra, we have room only for the concluding remark.

"As regards the actual average of measurements met with in practice, it is seldom that No. 12 cannot be fairly introduced into the adult urethra, while Nos. 13 and 15 are often admissible. The diameters of these instruments are, respectively, three-tenths and three-and-a-half tenths of an inch." (P. 8.)

Passing over the anatomical divisions of the urethra, its mucous membrane, the perineal fasciæ, and the characters and relations of these parts respectively, we are arrested by a most interesting account of the muscular tissues, and especially of the "involuntary muscular fibre," which the researches of Hancock and Köl liker have already introduced to general notice. The speculations of John Hunter, Home, Wilson, and their adversaries for and against the probable existence of these fibres, are successively reviewed; and the microscopical demonstrations, first of Köl liker and then of Hancock, are given at full length in their own language. The views and reclamations of the latter author are well known to English readers through his admirable "Lettsomian Lecture," and subsequent tract "On the Anat. and Phys. of the Male Urethra, and on the Path. of Strictures of that Canal," published in 1852. Mr. Thompson endorses the authority of the *Cyclopedia of Anatomy and Physiology* in giving to the German microscopist the credit of "first publishing the fact of the existence of involuntary muscular fibres, although the account he (Köl liker) gives is not in all respects corroborated by the researches of English anatomists." (P. 18.)

Mr. Hancock, on the other hand, who concedes "the priority of noticing these fibres" (see Hancock, *op. citat.* p. 9), is supported by our prize essayist in claiming the honour "of describing their situation and arrangement, and their importance as bearing upon practical points." (P. 19.)

Hancock's description, according to Mr. Thompson, "is more definite and comprehensive than Köl liker's, and possesses additional value from the fact that it appears to have been rendered altogether independently of any other, and in unconsciousness of its existence. It moreover contains fresh information respecting the subject, while it is somewhat at variance with the statements of Köl liker, in one or two particulars." (P. 20.)

In corroborating the demonstrations of his *confrère*, our author gives the following directions as to the best mode of dissecting for the purpose:—

"Lay open a urethra from the upper part; stretch out a portion by means of pins upon a board, and dissect up carefully a small flap of mucous membrane from any part of the canal, that of the prostate or of the glans penis being the parts from which they can be most easily demonstrated; and the elastic and non-elastic fibres, before seen lying beneath the transparent membrane, are exposed; these being removed by degrees, a grayish layer comes into view, a small portion of which, placed under an object-glass of a quarter of an inch focus, with a small quantity of water, will exhibit the appearances peculiar to the unstriped fibre, which it is unnecessary to detail here."

He remarks, in continuation, that "it is, however, a subject well deserving further investigation, as it requires to be explained how it is that the adult urethra, in which we might naturally expect them to be most fully developed, affords them less readily than that of the fœtus." (P. 23.)

Next in order come a very instructive, and in some respects original, series of reflections on the anatomy and physiology of the voluntary muscles of the urethral canal; on the structure and relations of the corpus spongiosum, especially of its bulbous portion and the fibrous covering and partition of the latter, together with the distribution of its arterial branches, in relation to hemorrhage; on the direction of the canal, and its relations with the fascia; lastly, on the urethral curve, with its variations in youth, adult age, and in individuals of spare, corpulent, or other conformation. The discussion of the urethral course and curve, and the practical inferences derived therefrom, are illustrated with the best diagram and dissection that we have ever found in Europe or America, although we have long been in the habit of looking for such a preparation at every opportunity within our reach. There is so much practi-

cal information given in this latter division of the chapter, that we would gladly transfer a considerable portion of it to our pages. Justice to the remaining topics of the work, however, obliges us to restrict ourselves to the *resumé*, with which it terminates.

"1. That the urethra is composed of a delicate and sensitive mucous membrane, exceedingly vascular and well supplied with nerves, the area of which is increased by numerous small glands and follicles; and that it is closely connected by its submucous areolar tissue with *involuntary muscular fibre in every part of its course*, the distribution of which is not quite equal in quantity throughout.

"2. That in some parts lying between the two, in others, often interlacing with these contractile fibres, but for the most part lying in longitudinal bundles beneath the mucous membrane, and united by transverse fibres, is also a varying amount of the *yellow elastic tissue*.

"3. That in the PROSTATIC AND IN THE SPONGY portions of the urethra, the glandular and erectile structures respectively, lie next in order to the above-mentioned contractile tissues (proceeding from within outwards), are both largely composed of involuntary muscular fibres, and enveloped by an outer layer of the same, which, while they act by evacuating, in either case, the contents of the organ—in the one, a glandular secretion; in the other, the blood supplied for erection—form also an agency which, in certain states, is brought to act more or less on the capacity of the urethral canal, and this agency may be somewhat increased by the co-operative action of the accelerator urinæ muscle.

"4. That in the MEMBRANOUS portion there is also *close contact of voluntary muscle*, the disposition of the fibres of which is such that it cannot be doubted that, whatever may be its degree or extent, its function is to close the canal at this point; the sphincteric character of the muscle being most strongly indicated by its structure, as well as by what we infer respecting its actions, as manifested by phenomena both natural and morbid.

"5. That not only does vascular or erectile tissue surround the whole of the spongy part of the urethra, but that a thin layer of it encircles the membranous portion also, and that from the peculiar structure and function of this tissue, laceration or division of it may be attended with considerable loss of blood.

"6. That while the PROSTATIC part is movable to a small extent in a direction upwards and downwards in obedience to muscular action, the MEMBRANOUS is nearly fixed and constant in position, from the application of unyielding structures (fasciæ) to it, in such a manner as greatly to limit the mobility of the part; and lastly, that, within certain limits, the spongy part is movable in any direction, the bulbous portion being less so in the ratio of its proximity to the anterior layer of the deep perineal fascia by which it is partially retained *in situ*, as well as by the corpora cavernosa, and by the triangular ligament above, uniting the penis to the pubes; the anterior two-thirds of the passage (more or less in different subjects) being, for the most part, perfectly free from mobile." (Pp. 47-48.)

"Classification and Pathology of Strictures of the Urethra," are the subjects of the second chapter. Under this head we have, in the course of forty pages, abundant evidence of the characteristically laborious, as well as practical and discriminating manner in which our author masters the various questions which have puzzled his predecessors in the same field of investigation. His unwearied examinations and analyses of the vast number of cases and preparations continually referred to throughout his book, have given him a vantage ground, which places him beyond the reach of most competitors, while they must save a world of trouble to all who may hereafter follow him in similar pursuits.

He adopts the classification of strictures into permanent and transitory, the former only being organic and the latter being inflammatory or spasmodic.

In studying the morbid anatomy of permanent organic stricture, he has deduced it, in a great measure, "from a close personal examination of more than three hundred preparations of stricture in the museums of this country [Great Britain] and of Paris, and of a number, almost equal, of preparations of the bladder, kidney, &c., which illustrate concomitant morbid conditions; as well as from the observation of recent specimens in the dead-house, which has been enjoyed by the author to a considerable extent."

We have room to note a very few of his conclusions. He believes that obliteration of the urethra by actual adhesion of its walls "probably never" does occur, unless as a consequence of fistulæ, "when, although very rarely, this accident may happen." "Nevertheless," continues he, "obliteration of the urethral canal does occur, but it is almost invariably of traumatic origin." He has "once, and once only, met with an impermeable stricture in the dead-house, and failed in attempting to pass a bristle or an eye-probe through it, after the urethra had been slit up to the point of contraction; urinary fistulæ were present." (P. 64.)

With regard to the locality of stricture, his observations lead him to coincide unhesitatingly with the prevalent opinion which places the most frequent seat of the contraction "at the posterior limit of the spongy portion." In designating the different points of coarctation, he considers that the only accurate method is to identify them with the anatomical regions of the urethra, since all measurements from the orifice merely must be wanting in precision. In accordance with this view, and desirous also of simplifying the arrangement as much as possible, he has comprehended all examples of the disease in three classes:—

"I. *Strictures occurring at the subpubic curvature, i. e., at the junction between the spongy and membranous portions and its neighbourhood; the latter term being understood to comprise an inch of the canal before, and three-quarters of an inch behind that point, thus including the whole of the membranous portion.*

"The junction itself is the point at which stricture is most frequently situated. Next is the extreme anterior boundary of the division, a spot which is one inch in front of the preceding, and almost as frequently affected; while, between these two points, six examples of stricture are met with for every one behind the junction, in which latter situation, therefore, they are very uncommon. Most rarely is a stricture found so far back as the posterior part of the membranous portion.

"II. *Strictures occupying the centre of the spongy portion, i. e., a region extending from the anterior limit of the preceding, to within two inches and a half of the external meatus, and measuring, therefore, about two and a half to three inches in length.*

"III. *Strictures occurring at the external orifice and within a distance of two inches and a half of it.*"

The following analysis of two hundred and seventy preparations referred to is then given; these preparations exhibit three hundred and twenty distinct strictures, viz:—

In region I. 215, or 67 per cent. of the entire number; in region II. 51, or 16 per cent.; in region III. 54, or 17 per cent. = 320. Of these there were—

185	examples of one stricture only, situated in region I.
17	" " " " " II.
24	" " " " " III.

There were 8 cases in which the urethra was strictured in all three regions.

"	10	"	"	"	"	in region I. and II. only.
"	10	"	"	"	"	I. and III. only.
"	13	"	"	"	"	II. and III. only.

Lastly, he confidently asserts "that there is not a single case of stricture in the prostatic portion of the urethra to be found in any one of the public museums of London, Edinburgh, or Paris." He is "disposed to believe that some observers have been deceived in reference to it, or that it owes its supposed existence to inferences drawn from the results of examinations of the living body, which can by no means be admitted as evidence on this subject. * * * * At present, therefore, the existence of prostatic stricture appears to rest on the observations of Leroy d'Etiolles and Ricord." We are under the impression that a case is reported also by Lallemand. At all events, as Mr. Thompson justly says, its excessive rarity at least is demonstrated.

Chapter III., which, like all the others, presents some very useful practical lessons, is occupied with the "Symptoms and Pathological Effects of Organic Stricture." The general and local consequences of long-continued or aggravated and even of slight affections of this kind, the fatal effects of slight injuries to the urethra in some cases, the dangers of rapid or extreme dilatation, the frequency of anomalous neuralgic pains dependent on the presence of stricture—are all judiciously impressed upon the reader's attention.

Chapter IV. presents us with a valuable discussion of the "Causes of Organic and Permanent Stricture." After quoting the leading authorities in relation to this topic, Mr. Thompson then turns to his tabulated cases. Of these, he has collected and arranged for the purpose from various reliable sources, two hundred and twenty, which are presented in the Appendix, Note F. We quote the analysis of these cases with which the chapter concludes:—

"Antecedents or supposed causes of organic and permanent stricture and gonorrhoeal inflammation, in 164; injury to perineum, in 28; cicatrization of chancres, 3; ditto after phagedæna, 1; congenital, including cases in which the urethra may have been small from malformation, and those in which marked irritability of the organs existed from childhood, accompanied by an unusually small stream, 6; poisoning by nitrate of potash, lithotrity, masturbation, of each, 1 (Lallemand); met with among the ordinary published cases in the journals, 3; true inflammatory stricture, including temporary stricture and retention from a sudden acute inflammation, usually caused by some excess, and disappearing by resolution, 8; true spasmodic stricture caused by irritation about the rectum, 2; ditto without assignable cause, 2; ditto caused by undue acidity and alkalinity of urine, 3. Total, 220.

"Respecting the first class of cases, the following facts are elicited: Of the 164 cases attributable to gonorrhœa, in 90 the disease is reported to have been chronic or neglected; in 3, it was attributed by the patients to strong injections; in 6, the discharge is stated to have ceased entirely and rapidly under treatment; but in 5 of them, stricture appeared almost immediately after; in 4 other cases the stricture appeared to be almost simultaneous with the gonorrhœa; in the remaining 61, there is no report of chronicity, &c. Of the 164 cases attributable to gonorrhœa, 10 appeared immediately after or during the attack; 71 appeared *within* 1 year of its occurrence; 41 *within* 3 or 4 years; 22 *within* 7 or 8 years; 20 are reported at periods between 8 and 20 to 25 years." (Pp. 132, 133.)

Next in order comes Chapter V., "On the Pathology of Strictures of Transient Duration." This treats of a class of disorders which are continually urging themselves, and often most unpleasantly, on the attention of the general practitioner as well as the professed surgeon, since they more frequently prevail among the wealthier portions of the community. The hints it conveys are therefore especially important to every medical inquirer. We have marked several, but must leave them to be found in the book itself, while we hasten on to the "Diagnosis and Treatment of Stricture of the Urethra,"

which occupy our author in his remaining chapters, with the exception of the tenth, eleventh, and twelfth.

Here we are at once introduced to the endless armamentarium of sounds, bougies, and catheters, in all their conflicting varieties. Hard, soft, and flexible—long curves, short curves, and angular—straight instruments and twisted—blunt ends, olivary, fusiform, and conoidal—stylets, lancets, and porte caustiques, one after the other, pass before us in a motley crowd to usher in the no less varied arts and mysteries of cast taking, measuring, the *tour de maitre*, preliminary sounding, vital dilatation, gradual dilatation, permanent dilatation, immediate or forced dilatation, cauterizing, internal incision, and external incision. These, and other perplexities and terrors of present and former days, are marshalled in their wonted shapes of wax, gum, tin, lead, steel, German silver, and genuine silver; but they are not, as of old, allowed to overwhelm the bewildered student and practitioner. Each implement and process, that deserves it, is fairly and rationally considered; and many of both are put aside, we trust, forever.

The diagnosis of stricture can, of course, only be determined by physical exploration, which must be effected by the passage of an instrument along the suspected canal. For this purpose our author prefers, as most reliable and most easily directed, “a solid silver sound, or, which is much cheaper and almost equally useful, a well-polished steel one, silver plated, the chief advantage of the former material being that it permits slight alteration to be made in its form for special cases, without sustaining injury.” The reasons given for this preference are the usual ones, and need not be repeated here. Our own experience has long since led us to the same conclusion in ordinary practice.

With regard to the curve of a sound or catheter, he remarks, that it should naturally be adapted to that of the least movable portion of the urethra itself, which he has previously shown to be “equal to a portion of the circumferential line, equal to about three-tenths of a circle three inches and a quarter in diameter.” The instrument, in its transit to the bladder through a healthy organ, “must describe a curve, and turn round an axis which may be imagined to exist about the centre of the symphysis pubis;” and, necessarily, will most readily do this if its own curve corresponds with that described (p. 158). This principle is very clearly illustrated by a diagram representing a catheter and bougie of the size and curve proposed. He further informs us that he had adopted and advocated such a curve on the ground of practice after long trial of different forms, and before having arrived at any theoretical conclusions on the subject. We are glad to find an old and well-tried predilection of our own for a very similar bend confirmed by such authority. Although it is well known, as he reminds us, that different curves have been equal favourites and equally successful in many eminent hands; and that under the direction of an able operator almost any form may seem the best, still the direction which would be most likely to facilitate the manœuvres of unpractised manipulators is undoubtedly of serious importance. We, therefore, second his advice respecting catheters and sounds as, throughout, worth the especial attention of the great majority of general practitioners, and, above all, of the beginners in this exercise. A very few trials on the dead or living body, and especially upon themselves, would probably assure them of the value of the precepts which Mr. Thompson has explained and applied with mathematical clearness and precision, while he appeals to a prolonged and abundant experience for their practical demonstration. In speaking of the eyes of catheters, he objects to the usual size, and advises that smaller openings

should be made, on account of the protruding of the mucous membrane into them when too large. We have often been struck with the increased pain and difficulty arising from the suction of the mucous lining through the apertures of the ordinary catheter during the exit as well as entrance of the instrument, especially when quickly done. We have no doubt that it is a frequent though rarely appreciated source of trouble to the patient, if not to the surgeon; and hence have for years past preferred using an instrument perforated around its extremity, like the female catheter, with numerous small holes instead of the larger elliptical fenestra on the sides. The objection to these cribriform terminations, that they are apt to become clogged, is not found to be very great in practice, and is easily obviated by slightly enlarging the holes so as still to secure the object which our author seeks in reducing the dimensions of the lateral clefts.

Mr. Thompson's whole account of the mode of introducing the catheter may be as warmly recommended to our junior readers as that of the instrument itself. It is admirably clear, judicious, and complete. "The more quietly, gently, and unostentatiously these manipulations are accomplished, the more credit will the operator obtain for the possession of a light and easy hand."

We shall never forget the lesson long ago afforded us, and after a good deal of hospital practice and observation elsewhere, by the example of Civile, in the slowness, steadiness, and perfect gentleness with which that unsurpassed, if equalled, catheterizer invariably operated on his patients. "Whatever the obstruction, it is never to be carried by storm. A patient, persevering, and unruffled spirit, with a dexterous hand, will work miracles in cases of difficult catheterism" (p. 167). How many a poor fellow, in his hour of agony, has felt the force, either for good or evil according to his trial, of the *caveat* thus announced?

A protest has been entered against the suggestion of Mr. Thompson, that the surgeon who wishes to excel in this kind of performance should try it on himself. The idea is not a new one. It is an old and favourite expedient with some practitioners who certainly did not think of martyrizing themselves, although they wished to save their patients. *Ad hominem* though it be, we willingly subscribe to this mode of training, and none the less so because we have some knowledge of its convincing properties from personal experiment. The only other mode of arriving at an equally positive idea of the action of different forms, sizes, and kinds of instruments upon a healthy urethra is to make one's self the *experimentum crucis*, under the tender mercies of a second party; a stretch of devotion to the cause of good catheterism which we freely confess to be even beyond our ambition. Cautious self-catheterizing, however disagreeable, ought not to be lost sight of by the enterprising student, as the very best means of acquiring a practical understanding of the art in general.

The operator who is unable to withstand such a trial of his strength of nerve can hardly be qualified to perform the office for another. Indeed, we hold that no man of an irritable temperament, or little self-control, should ever undertake the introduction of a catheter in any case, much less the treatment of a stricture. "*Festina Lente* must be a motto never for an instant to be forgotten; one moment's loss of self-command, and irreparable mischief may be done." (P. 180.)

The innumerable plans of treatment are resolved into three classes: Those which produce dilatation through pressure, mechanically and by absorption; those which effect a similar result through the chemical or absorbent action of caustics; and those in which the opposing tissue is divided from within or from without, by some cutting instrument, each process being, of course,

accompanied by the use of constitutional remedies. The employment of dilatation is placed first in order, as not only the oldest, but by far the most desirable and most generally applicable method of treatment. It is the one which is resorted to in the vast majority of instances as the rule, and only laid aside for other modes when proved ineffective or insufficient to maintain a cure.

The author's views as to the proper mode of ordinary instrumental and general therapeutic management, are very well shown in the statement of two hypothetical cases, the one simple and the other more difficult. In reviewing these and other illustrations we have not time to follow him in detail, and must content ourselves with an occasional note. He uses a metallic sound or catheter whenever the size of the opening through the stricture will admit of it, advises an attempt at gradual dilatation in all cases, and strongly deprecates the exercise of violence or haste. In certain difficult forms of stricture, he is satisfied that where no false passages exist, and when they can be avoided, "the employment of continued pressure on the face or in the commencement of a stricture is almost uniformly successful." The operator must take care, however, that he is really acting on the contraction alone. He must remember as an invariable test of genuine progress, that when the instrument is tightly grasped he "may infer that its point is safe within the strictured part, but that when the point feels free, movable, and capable of being withdrawn without appreciable effort, it is certainly not in the stricture; it may be, in such circumstances, in a false passage."

In the management of a narrow stricture, he advocates, with good reason, we think, the employment of conical sounds, and proposes three different sizes, made of solid metal and well polished, as an efficient set. Silver-plated steel sounds of this form have long been very widely used in Philadelphia, and, so far as we have learned, with general satisfaction.

Respecting the use of force, which may be allowed in particular exceptional cases, the following conditions are stated as indispensable:—

1st. When required, "it may only be made *after the point of the instrument has well and fully entered the stricture*, so that the operator is assured that it is in the right track. Force is never to be employed in order to make a way into it."

2d. "It is then to be increased very gradually, first trying one uniform rate of forcible pressure for two or three minutes before proceeding to increase it; and, when it is found necessary to do so, the increase must be continued in the same manner for a similar length of time. It is not to be accomplished by pressing onwards with more and more violence, until something gives way. This is never legitimate."

3d. "Complete knowledge of the anatomy of the passage, some acquaintance with its diseased conditions also, and long experience in the use of instruments in it, are the indispensable qualifications of the operator to whom the use of force is permitted." (P. 183.)

Not satisfied with these express rules, he follows them up with a warning as to *when* force should not be used, so anxious is he to be clearly understood.

In dealing with those most troublesome accidents, false passages, we find two valuable hints, which, although not new, deserve renewed attention.

1st. "That they almost invariably commence on a level *below* that of the proper opening; and, secondly, that the operator's finger when in the rectum, near to which the false passage is almost certain to run, will communicate information as to the route which the catheter is taking, whether it be too close to the gut, or deviating to the right or left of the median line; it will, moreover, be serviceable in assisting him to guide the point in the true direction." (P. 187.)

The remainder of Chapter VI. is occupied with the careful consideration of many topics of practical interest; such, for instance, as the relative merits and respective uses of flexible and inflexible bougies; Dupuytren's method of retaining a catheter for hours or days *against* a stricture, called "vital dilatation;" the method of retaining a catheter *within* a stricture, or "mechanical dilatation;" the injurious effects of rapid or extreme dilatation, &c. &c. The closing paragraphs of this chapter relate to the unfortunate fact that there are cases in which dilatation is only temporary in its action, and which are therefore incurable by this method. The question is consequently asked, In what manner can such cases be relieved? The answer to this follows in the two succeeding chapters, VII. and VIII., which contain a full and very fair discussion of the use of "chemical agents" in the shape of caustics, and of the resort to cutting instruments internally and externally.

His personal acquaintance with the caustic treatment does not appear to be extensive, and his impressions are certainly unfavourable. Still, he gives us a candid and sufficiently comprehensive history of the escharotic method in the hands of its most prominent British and French advocates, from Wiseman and Paré down to Leroy d'Etiolles and Wade of our own day.

Nitrate of silver and caustic potash are the only caustics used, the former being preferred exclusively by most authorities. All modes of application may be resolved into two categories. "Either a small instrument containing it is introduced into the stricture, which cannot then be a narrow one; or a small portion of the agent is carried down to it and pressed against its anterior surface." His conclusions are expressed in the following extract:—

"That these agents are never to be employed for the sake of their escharotic or caustic powers, properly speaking."

"That the nitrate of silver, lightly applied, exerts a salutary action on the diseased surface of the urethra, relieving inordinate irritability, and checking undue vascularity and disposition to hemorrhage, as it does in similar conditions of the skin and mucous membrane in other parts of the body, and thus it becomes a useful adjunct to dilatation."

"That the potassa fusa, as a caustic, is considerably more active than the preceding, and is therefore more dangerous of application. If used at all, it should be only in *very minute* quantities, such as fractional parts of a grain, inasmuch as it is exceedingly difficult to limit the action of so powerful an escharotic. It may perhaps aid dilatation in the reduction of some strictures, probably by facilitating the solution of some of their component tissues, when care is taken to employ it in obedience to the condition just named." (P. 221.)

We are inclined to consider this appreciation just enough, as far as it goes, but would have been glad to see it carried on a little further. Under the direction of a tyro or incompetent operator, the employment of any escharotic in the urethra might be very dangerous; but, in skilful and experienced hands, we know it to be not only safe in many instances, but highly serviceable. We have heard of cases in which frightful mischief has been produced by the improper use of caustic potash; but from what we have repeatedly observed of its careful application as a powerful stimulant to absorbent action on other surfaces, we have no doubt that, when properly diluted and otherwise modified or guarded in its action, and *opportunistically* employed, it may prove a most valuable aid to milder means. So, also, with nitrate of silver, with the action of which, combined and uncombined with milder salts, we have long been more familiar in the management of stricture. So much depends upon the strength, the mode and the time of application, that the philosophy of this species of treatment would seem to consist, as it does even with the bougie, rather in attention to the minor details of its application than

in the mere indefinite resort to one or the other of two powerful agents in their primitive shape. The objections and caveats are levelled against their abuses only, while their true applications and legitimate availability are scarcely estimated in the manner which the fulness and precision of the previous chapters had led us to expect.

We come next to the treatment by intra-urethral incision, which is the subject of Chapter VIII. Passing over the excellent history and principles of this plan of treatment, together with the author's brief but comprehensive descriptions of the various instruments and modes of operating, we shall proceed to quote his summary of indications.

"1st. When dilatation has been sufficiently tried, and does not afford relief, or that which is temporary only in its duration (and the stricture is not of an irritable character, in which case, as we have seen, a trial of the caustic may first be made);"

"2d. And the stricture is known to consist of a mere fold of membrane, or, at all events, is a short one, *i. e.* of small extent from before backwards;"

"3d. When this is situated in the anterior three or four inches of the urethra, the case is one which most probably will be successfully treated by division, according to the modes already recommended, the choice of which should be determined by rules already given." (P. 233.)

The objection to all internal cutting instruments is that the operator has no means of ascertaining clearly how far or what he cuts. Instruments for the purpose ought to be constructed with a guide.

"Thus the attempt to perforate an obstruction otherwise impassable by pushing a pointed blade into it without a guide, must be always somewhat hazardous; extremely so, if it be attempted in the curved part of the urethra. * * * Less dangerous is it, as we shall hereafter see, to lay open the perineum and divide the stricture from without, thus giving free vent to noxious fluids of all kinds, than to wound the urethra from within, at or behind the bulb, as we run great risk of doing when operating at six inches distance from the external meatus, and thus only make a channel for these matters into the erectile cavities and other structures round." (Pp. 224, 225.)

Chapter VII. concludes with a short summary of the general rules of treatment thus far established.

"*Dilatation* has been found successful for the great majority of cases, but certainly inefficient for the cure of some old and extensive strictures, as well as for some which are accompanied by a highly irritable condition of the urethra.

"*Cauterization* must be regarded as a useful adjunct to dilatation in some few cases, especially in some of those in which a considerable degree of irritability exists. It is wholly inapplicable to the removal of old and extensive contractions.

"*Internal division* is particularly suited to these last-named cases, when situated in the anterior part of the urethra.

"There remain, therefore, by process of exclusion, some *very irritable strictures*, and some *obstinate and extensive ones*; the latter being usually situated about the junction of the spongy and the membranous portions, or a little anterior thereto, for which at present no adequate remedy has been described." (Pp. 234, 235.)

These are the bad cases on account of which, in addition to those of retention and of urinary fistula, the more extended application of external urethrotomy has, of late years, been especially discussed. It is well known that the operation of perineal section, with or without a guide, but particularly in impassable stricture—the buttonhole incision, or *bouttonnière*, as the French call it—is a very old one, familiar in some shape or other as one of last resort for at least two centuries.

The earliest record which Mr. Thompson gives us of such an operation "*performed for the cure of stricture, and not for the relief of retention,*" is that of an unsuccessful one related by Wiseman (*Chirurgical Treatises*, 5th ed. vol. ii. p. 427) as having been attempted in 1652. We find in Saviard's *Surgical Observations* (London Translation, by J. S., p. 167), a report of an equally unfortunate attempt made by himself in 1692.

Other and later French and British Surgeons appear to have tried it for the same purposes from time to time, with various success; and in America, it was advocated in 1824 by Dr. H. G. Jameson, who had practised the incision in the median line for the cure of obstinate stricture as well as for the relief of retention, first in 1820 and repeatedly thereafter, with results so gratifying as to induce him to recommend the operation as not only very efficient but entirely safe. (*Medical Recorder*, vol. vii. p. 283, and p. 713.) Mr. Thompson shows that the practice of the operation, both through the raphé and by its side, in cases of retention, appears to have been adopted by British surgeons early in the present century. It has certainly been frequently resorted to in the United States as well as in the British Islands and on the European Continent, throughout the last thirty or forty years, in the management of perineal fistula and as a favourite means of rescuing the victim of retention from the dangers of this accident. The operation has long been a familiar one in Philadelphia (see for instance Horner's lateral section, in H. H. Smith's *Operative Surgery*); and the recent interesting paper of Dr. Lente (quoted in the last No. of this Journal, from the *New York Journ. of Med.* for March, 1855) proves that it has been equally common in New York. Fergusson tells us, in his *Operative Surgery* (4th Am. ed. p. 583), that he has been accustomed to see and treat cases of the kind with the usual cutting operation for the last five and twenty years. Bransby Cooper says much the same. Mayo and others also refer to it in a similar manner. Guthrie describes the section in the perineal raphé as first taught by him in 1816, and published in 1830. Mr. Simon alludes to Guthrie's operation as the one in established use among the hospitals of London for the last thirty years. We have, also, among the recent French descriptions of it, that of Vidal de Cassis, who is decidedly in its favour as less formidable than is generally supposed; and that of Sedillot, which corresponds, in its method, with the procedure as modified by Avery and recommended by our author. All have regarded it as a very serious expedient, to be undertaken chiefly if not solely as a *dernier ressort*, although one that should not be deferred, as it too often is, until the patient is likely to sink under the effects of the mischief produced by the injury itself.

We must refer the reader for the detailed steps of the operation, as performed in cases of impermeable stricture, and for Mr. Thompson's appreciation of its value and particular uses, to his own pages; and shall proceed at once to the new application of perineal section as presented by Mr. Syme.

Although the idea of performing external incision, with a guide in the urethra, and for the cure of stricture alone, is an old one, and occasionally put in practice as well as recommended on both sides of the Atlantic long before the professional advent of its Edinburgh advocate; still that able and indefatigable surgeon is entitled to all the credit due to its establishment as a standard operation. He deserves, too, the perhaps more substantial honour of having first definitely ascertained and announced the principles of this mode of treatment, and, in accordance with these, the proper method of procedure before and after, as well as during the performance of, the operation.



Mr. Thompson appears to us to have succeeded in preparing not only "a fair and correct exposition of the much vexed question, but the best and most useful one yet published;" and in doing so has very materially enhanced the value of his monograph. It is, to use his own words, truly "a laborious, careful, and, as far as possible, an unprejudiced examination of the evidence presented in relation to the subject;" and, as such, must particularly interest our readers now that a considerable interval has elapsed since the discussion first arose. We regret, therefore, that the already tedious length of this review will oblige us to curtail the summary of this portion of our author's essay.

Putting retention of urine and urinary fistula out of view, and confining ourselves to the consideration of stricture solely, Mr. Thompson reminds us of the old axiom among surgeons, both in theory and practice, "*that when a sound of any size can be passed through a stricture into the bladder, division of the stricture from the surface of the perineum is certainly contra-indicated.*" Mr. Syme reverses the rule here stated, and proposes to make "*permeability an indispensable prerequisite to the performance of external division.*" He has some most respectable followers in this innovation, and, as a matter of course, many eminent and uncompromising opponents. The exclusiveness and ultraism, however, which formerly retarded the progress towards a reasonable investigation of the matter, are evidently giving way in the lapse of time to enlarged experience and calmer observation on both sides; and the conflicting parties are approaching to a common ground which will prove more tenable than either of the positions so bitterly maintained at first.

Mr. Syme and some others originally disbelieved in the existence of "impassable stricture." In this the positive experience of several unquestionable observers is decidedly against them; and even Mr. Syme himself has been obliged not only to qualify his first assertion, but to modify his individual belief. Mr. Thompson admits the possibility and actual occurrence of impermeable stricture, but adheres to the opinion that it is so rare as to be practically almost unknown; and that, therefore, in the vast majority of cases, the ordinary mode of perineal section without a guide inserted through the seat of stricture, is really unnecessary, as Mr. Syme avers; while the "external division" on the grooved sound suggested by the latter, may sooner or later be effected, and must be taken "*as the rule.*" The real amount of permeability must vary in different hands and under different circumstances in the same patient. It can only be approximatively determined in a number of exceptional cases already sufficiently large in the practice of undoubtedly skilful operators to warrant the more difficult and dangerous operation, notwithstanding the remarkable success of Mr. Syme in overcoming the difficulty which necessitates a resort to it by others. The difference, after all, is more verbal than practical among competent men. "Most assuredly," says Mr. Thompson, "the cases are few in which a sound may not be passed by a skilful and persevering operator, perhaps fewer than they have generally been supposed." A recent notice of the second edition, just published, of Mr. Syme's work *On Stricture of the Urethra and Fistula in Perineo* (*Edinburgh Monthly Journ. of Med.*, for April, 1855), affords us the opportunity of quoting his latest experience in relation to this and other points at issue in the controversy.

"Cutting into the perineum without the assistance of a precise guide, exposes to the serious danger of opening the urethra on the wrong side of the stricture, of breaking through the deep fascia and of wounding the artery of the bulb, so as to incur the risk of urinary extravasation and hemorrhage,

while pressure being the only means available to suppress the latter, must greatly tend to promote the former evil. It is, therefore, no wonder that this procedure has been looked upon as a forlorn hope, warrantable only in cases of impermeable stricture. But while admitting, as I have already done, that, in some rare cases, the urethra may be actually obliterated, I maintain that no stricture is impermeable, and that if a drop of urine is able to escape, a director of sufficiently small size may be introduced; and in support of this position I appeal to the fact that, although patients alleged to labour under impermeable contractions have come to me for relief from the most distant parts of Scotland, England, and Ireland, from the Colonies and from America, I have never, either publicly or privately, been unable to pass an instrument since I became satisfied that there was no true impermeability."

"Some advocates of impermeability, indeed, allege that those who deny the existence of this condition effect a passage by force; but as the stricture is tougher than the sound urethra, and as, therefore, any passage accomplished by force must necessarily be a false one, which would aggravate the patient's case instead of remedying it, the satisfactory result of treatment affords a most complete refutation of such statements. As already said, it is far from my intention to allege that the introduction of instruments may always be accomplished with ease. In general, I have succeeded at the first attempt; but in many cases have had to wait days, or even weeks, before the passage could be hit. Indeed, on three occasions—one in private and two in public—I found it necessary to open the urethra anteriorly to the stricture, so as to obtain the assistance of a finger placed in the canal, to guide the point of the instrument." (Pp. 33—36. See p. 331 of the *Journal* just quoted.)

Mr. Syme's adversaries cannot fail to be much edified with the new method of insinuation which he rather naively announces as having at last to be resorted to before the passage "could be hit." Such an admission looks extremely like a virtual surrender of his previous assumption, since it proves him to have been foiled, and ranges him inevitably with Liston and other champions of permeability, who have been weighed in the balance and found wanting. The manœuvre, which is here only the prelude to the final incision, strikes us as closely resembling the anterior opening which Mayo in his *Outlines of Pathology* (p. 404, Am. ed.) designates as a material part of the main procedure. It is most suspiciously like a "buttonhole" contrivance, and unavoidably suggests the idea of a back door in the operator's argument.

In one of the two cases that occurred in public, Mr. Syme, according to his reviewer, after mentioning that he had been for two months unable to pass a bougie through a stricture reported impermeable, gives the following account of the plan he adopted:—

"As I had little doubt, however, that the difficulty arose from the form of the urethra where the false passage entered it, rather than from mere tightness of the stricture, I resolved to lay open the urethra on a director in front of the stricture, and then endeavour to guide the director through the stricture by means of my forefinger introduced into the wound; for I had found, in a former case, that the tip of the index finger being inserted into the part of the urethra in front of the stricture as into a thimble, afforded the means of guiding on an instrument through the stricture with unexpected facility. Accordingly, on the 31st August, the patient being under chloroform, I measured with a large bougie the distance of the stricture from the external orifice, and having introduced a director rather larger than a No. 1 bougie for the same distance into the urethra, I pushed it in as far as it would go, and being thus sure that the end of the director was in the false passage, I made an incision in the middle line of the perineum, and laid open on the director the contiguous parts of the urethra and false passage. Having then introduced my finger into the wound, I succeeded in guiding the director through the stricture, and divided it in the usual manner by running the knife along the groove. I had now no

difficulty in passing a full-sized catheter into the bladder." (Pp. 94-96, from *Ibid.* p. 331.)

"This case," as the journalist justly remarks, "appears to throw an entirely new light upon the subject of relieving retention of urine by operation when the catheter cannot be passed in the ordinary way. And, although Mr. Syme tells us that he has never yet found puncture of the bladder necessary for retention of urine depending upon stricture, he must admit that if a case like the above had come to him with urgent retention, before he had hit upon the expedient there made use of, he must have had recourse to puncture of the bladder. For though the difficulty in that case arose from complication with a false passage rather than from tightness of the stricture, yet it was not on that account the less insuperable in the ordinary way. The great obstacle to the management of strictures at the bulb unquestionably is the difficulty of guiding small instruments with precision in that part of the canal, and the means now furnished by Mr. Syme for facilitating this process appears to us a most valuable addition to surgery.—(*Edin. Monthly Journ. of Med.* 1855, pp. 331, 332.)

The forms of stricture which are described by Mr. Thompson as not amenable to the treatment by dilatation or other action within the canal, have been already briefly sketched. We may as well again avail ourselves of Mr. Syme's reviewer to quote that surgeon's graphic picture of the cases which his plan is intended to relieve. These—

"May be distinguished as unyielding, irritable, and contractile. In the unyielding form, dilatation, though it may be carried on to some extent, is sooner or later arrested by resistance of the tough texture at the seat of contraction; and if attempts are made to remove this obstacle by forcible distension, the most serious consequences are apt to ensue. In the irritable condition, while all the symptoms of stricture are presented in an extreme degree of severity, the gentlest introduction of instruments is sure to produce great aggravation, not only at the time, but for days afterwards; so that the patient is distracted between the desire to obtain relief, and dread of the effects resulting from means employed with this view. In the contractile, or spasmodic stricture, as it is usually called, no difficulty is experienced in dilating the canal to its proper capacity; but unhappily with little benefit, the patient still making water laboriously, painfully, and frequently by drops, or in a dribbling stream, which is liable to complete obstruction, through the influence of any local or constitutional disturbance affecting the urinary organs."

"For the treatment of stricture in these three forms, whether existing singly or combined together, the means of remedy hitherto employed have proved quite unavailing; and the patients thus afflicted are deserving to be regarded as a great discredit to surgery. If poor, they frequent hospitals until dismissed by desire from despair of relief, or are declared incurable, or fall victims to practice more zealous than discreet. If rich, they run the gauntlet of European skill, having bougies introduced, caustic applied, internal incisions inflicted, and so on, until, with broken health, disappointed hopes, and perhaps empty purses, they retire in dreary seclusion from society to carry on a dangerous and ineffectual system of palliation through means of the various apparatus collected in the course of their wanderings. That this is not an imaginary or overdrawn picture must be admitted by every practitioner who possesses any considerable field of observation, and will also appear from the cases to be found in any large hospital." (Pp. 25, 26, from *ibid.* p. 330.)

With regard to the alleged dangers of the external incision, as performed by Mr. Syme—hemorrhage and extravasation of urine—Mr. Thompson is inclined, with Mr. Syme, to doubt them altogether as not proven by experience. Hemorrhage may be escaped by adherence to the middle septum of the bulb, and serious extravasation may be rendered equally improbable by limiting the external incision and avoiding the deep-seated fascia and the portion of the urethra posterior to the bulb. The only other risk is from purulent

infection or pyæmia, which is not peculiar to this operation, or as great in it as in the old one. There is, however, a train of nervous symptoms, consisting of rigors, with occasional vomiting, suppression of urine, and delirium, which become at times alarming, and may give rise to great anxiety and suffering during the first two or three days. Mr. Syme insists that they are transient in the great majority of cases, "passing off in a few hours without the slightest disagreeable consequences."

The principles on which this operation is founded are summed up in a recent lecture of Mr. Syme, published in the London *Lancet*, in the following terms:—

"First. Stricture is never seated posteriorly to the bulb, and therefore the incision should never extend further back than the bulb.

"Second. A grooved director must be insinuated through the contracted part, without injury or abrasion of the lining membrane of the urethra.

"Third. If the incision has been properly performed, there is no need to dilate sinuses, which are sure to close when the stricture is removed.

"Fourth. A catheter should be introduced into the bladder after the operation, and retained for forty-eight hours; not less, on account of the risk of the extravasation of urine; and not longer, because it is unnecessary, and apt to do harm." (March, 1855, p. 198.)

We do not believe that Mr. Thompson would endorse the above sweeping assertion that strictures are never posterior to the bulb. Mr. Syme makes this negative statement on the ground that in all his operative experience, which, at the date of his last edition, amounted to 108 cases, he has never had reason to cut further back than the bulbous portion.

The original anticipations of its author in respect to freedom from danger to life in the operation of Mr. Syme, appear to have been entirely fulfilled in his own experience, as well as in the results ascertained by Mr. Thompson.

"Having declined no case presented for treatment, and operated at all ages, from 77 downwards, as well as under every variety of complication from long existence, alleged impermeability, and the false passages of previous mismanagement, I have now performed the operation 108 times, with only 2 fatal results that can be ascribed to it." (Pp. 44, 45, Journ. citat. p. 333.)

Neither of the fatal cases (attributed to pyæmia) appears to the Edinburgh reviewer to be very clearly made out against the operation, since the one was not a fair subject for operation, and the death in the other was probably the result of cerebral lesion. Two cases in over a hundred is a sufficiently small proportion to satisfy every candid reader, whether fairly counted or not in the estimate of liabilities. Mr. Thompson's table gives 113 cases and four deaths, also from pyæmia. We give the table of Mr. Thompson for what it is worth, although, as far as the general results are concerned, we would put more faith in his individual experience, and in that of the original performer, than in that of a number of different experimenters, however able, unless we could be sure that the manipulation and general management were the same, *cæteris paribus*, in all the cases.

By Mr. Syme, above 70 times, no death; a large proportion of the cases successful.

By Mr. Fergusson, 4 times; 1 death; 2 tolerably successful; 1 doubtful. "Outlines of Cases," Nos. 1 to 4.

By Mr. Cock, 5 times; 1 death; the remainder more or less successful. "Outlines of Cases," Nos. 5, 6, 7, 8, and 9.

By Mr. Coulson, 8 times; 1 death; the remainder more or less successful. "Outlines of Cases," Nos. 10 to 17.

By Mr. Erichsen, 5 times; the majority more or less successful; one or two doubtful. "Outlines of Cases," Nos. 18 to 21. "Reported cases," No. 17.

By Mr. Haynes Walton, 1 time; successful. "Outlines of Cases," No. 22.
 By Mr. H. Thompson, 1 time; successful. "Reported Cases," No. 11.
 By Mr. Mackenzie, 7 times; one death; the remainder more or less successful.
 "Outlines of Cases," Nos. 23 to 29.
 By Mr. Dunsmure, 3 times; two more or less successful; one unsuccessful.
 "Outlines of Cases," Nos. 30 to 32.
 By Dr. F. Thompson, 2 times; successful. "Outlines of Cases," Nos. 33, 34.
 By Dr. Cruickshank, 1 time; successful. "Outlines of Cases," No. 35.
 By Mr. Fiddes, 6 times; five successful; one doubtful. "Outlines of Cases," Nos. 36 to 41.

An examination of the detailed histories of these cases does not convince Mr. Thompson that any great danger was incurred from hemorrhage; certainly not more, if not less, than in other operations involving any portion of the urethral bulb. At all events, in the opinion of our author, if bleeding should come on, it can always be arrested. Only one instance of hemorrhage occurred in Mr. Syme's 108 cases.

In answer to the question as to how far external incision should be entitled to acceptance as a standard remedy for the specified forms of stricture, Mr. Thompson gives, as much as present limited experience will justify it, a favourable answer. We must refer to the essay itself, and to Mr. Syme's various articles, for an enumeration of the different causes to which they attribute failures and relapses. To these, also, and especially to Mr. Thompson's admirable account of it, would we invite the careful attention of our readers for an unmistakably precise and full description of the various practical details of the operation and the instruments employed.

The chapters on "Urinary Abscess and Fistula," on "Retention of Urine depending on Stricture," and on "Stricture of the Female Urethra," occupy the remainder of the regular work. They are, like the others, full of valuable information, and may be consulted with signal advantage by every one in search of guidance in the management of those formidable classes of disease.

The second of these final chapters closes, "in pursuance of the principle which has been adopted in regard to each section of this work," with a brief "recapitulation of the CONCLUSIONS arrived at in relation to the entire subject of treatment, in order to afford a summary of the main points which it has been my aim to elucidate in the foregoing pages."

We quote them in full as they follow:—

"1. That the process of dilatation, carefully and perseveringly employed, is the most safe, efficient, and generally applicable of all means for the treatment of organic and permanent stricture." (Pp. 173-4.)

"2. That, while it is successful in curing the majority of cases, there are unquestionably some in which either the effect is so temporary that the contraction reappears on the cessation of the treatment, however long continued, or in which the urethra is so irritable that its employment aggravates rather than removes the symptoms." (Pp. 205, 255-6.)

"3. That the nitrate of silver lightly applied is sometimes useful in the last-named cases, inasmuch as it exerts a salutary influence upon the diseased surface of the urethra, relieving inordinate irritability, and checking undue vascularity and disposition to hemorrhage, as it does in similar conditions of the skin and mucous membrane in other parts of the body, and that it is a useful adjunct to dilatation." (P. 219.)

"4. That the potassa fusa, as a caustic, is considerably more active than the preceding, and is therefore more dangerous of application. If used at all, it should be applied only in very minute quantities, inasmuch as it is exceedingly difficult to limit the action of so powerful an escharotic, and apply it as a solvent only. It appears occasionally to aid the process of dilatation in the reduction of some strictures, probably by facilitating the solution of their component tis-

sues, when care is taken to employ it in obedience to the condition just named." (P. 220.)

"5. That no agent should be employed in any case for the purpose of making an eschar or slough in the urethral canal." (P. 220.)

"6. That internal division is applicable only to strictures which are situated in that part of the urethra which is anterior to the bulb, and which have been found to resist dilatation." (P. 225-6.)

"7. That the distance at which a stricture is situated from the orifice, and the extent to which it implicates the canal, may be so great as altogether to forbid the practice of internal division; for the operation becomes more hazardous just in the ratio of the extent of the stricture, and extent becomes more formidable in the ratio of its distance from the external meatus; so that it is a far easier proceeding to make external division of a large portion of contracted urethra situated in the anterior part of the spongy body, than of a small portion at the bulb or behind it." (P. 234.)

"8. That dilatation having failed after an ample trial, the stricture being permeable and situated near to the junction of the bulb and membranous portion (a spot already seen to be the most frequently affected), external division made from the perineum upon a grooved staff is, for most such cases, a safe and efficient mode of treatment." (Pp. 256, *et seq.*)

"9. That when the urethra is impermeable, every available means having been patiently and perseveringly employed to pass a catheter through it, but without success, the perineal section may be performed as a means of cure." (Pp. 251-2.)

"10. That when it is necessary to make an artificial outlet to relieve retention of urine, an operation may be performed for the purpose of curing the stricture at the same time; but if the condition of the patient require the proceeding employed to be as simple as possible, the puncture of the bladder per rectum is indicated, unless the urethra be dilated in the perineum, when the making a single puncture there will be the best operation to perform." (Pp. 308-9.)

"That it is a matter of great importance in the treatment of old or severe strictures, in relation to the mode of treatment employed, to ascertain what degree of organic renal disease exists as fully as our means of observation enable us; inasmuch as its presence renders *all* operations upon the urethra hazardous, and, for the most part, in a degree corresponding with the extent to which the renal organs are implicated." (Pp. 102-3, and 269.)

"12. That since few permanent strictures exist, which are not considerably influenced at some time or another by the occurrence of inflammation or congestion in the parts around, or by the action of spasm in the adjacent muscular tissues, either separately or conjointly, treatment may be always most advantageously directed to the improvement of the general health, to the subduing of local congestion, and to the removal of those sources of irritation, whether in the urine, in the urinary passages, or in some other and more distant parts, which have been pointed out as liable to excite the phenomena referred to." (Pp. 203-5, and Chapter V., *The Pathology of Strictures which are of Transient Duration.*)

Last, but not least, our author treats us to an appendix, which is in itself a rich and extremely interesting book. It is a nearly inexhaustible mine of practical instruction in its abundant and varied record of clinical and pathological facts. As such, we recommend its frequent study to both students and practitioners. They could not more effectually improve themselves in their application of the principles so amply and distinctly developed in the previous pages of the volume.

Urethral stricture, of all the ills that flesh is heir to, does most notoriously expose its victims to the charlatan and the sciolist. A really sound essay, therefore, which covers the whole ground with the ability and candour of the one before us, ought to be welcomed as a more than ordinary boon to erring humanity. It cannot be denied that, however copiously and wisely the sub-

ject has been dealt with by authoritative teachers from the time of Paré and Wiseman until the present day, the thirst for gain and novelty, the spirit of ambition and adventure, are ever actively engaged, with often reckless and fearfully mistaken zeal, in devising new means and appliances for casting off the burthen of misery under which so many impatient sons of Adam are in this way doing penance for their sins. A contribution of the character and standing of Mr. Thompson's, should for its beacon-light alone be cherished as a work of peculiar necessity and value. Its appearance, along with that of a few others of similar tone and tendency, will be prized as the best evidence of decided progress in this branch of surgical pathology and therapeutics; since they are founded on the only true basis of extended personal observation and research.

E. H.

ART. XIV.—*Inquest on the Death of Agnes E. Lottimer*, before Dr. GEORGE C. BALL, Coroner, Brooklyn, N. Y. New York, 1854, pp. 44, 8vo.

It is not often that we have an opportunity of seeing quackery brought to such tests as will reveal its true character. Its system of deceptions ordinarily suffices to keep the public in ignorance of its falseness and its folly. But now and then the true tests are applied, and quackery is drawn out from its concealment, and its false pretensions and dishonest arts are exposed to the light of day. The coroner's inquest contained in the pamphlet before us has done this for that ridiculous but genteel form of quackery commonly called homœopathy. So far as one single case can do it, the case here reported exhibits in the clearest manner the ignorance and folly which belong to homœopathic practitioners of even high repute among its advocates, and the degrading influence which the beliefs and practices of homœopathy exert upon the mental character, and we may say upon the moral character also. We propose, therefore, to develop to our readers in this article, the character and tendencies of homœopathy, as they are exhibited to us in this case.

The facts of the case are briefly as follows: Agnes E. Lottimer, aged 12 years, was taken sick on the 2d of August. She was attended by Dr. Wells, a homœopathic doctor in Brooklyn, N. Y., with Dr. Dunham, another homœopathic doctor, in consultation occasionally. From the account which Dr. Wells gives of the case, it appears that the disease was intermittent fever. Both the physicians and the quacks that testified in the case agree on this point. The only difference of opinion was as to its accompaniments and complications. These will be spoken of in the course of our remarks.

Although the disease lasted so long (over two months), the homœopathic doctors assured the anxious parents and friends that the patient was doing well, because, as they testified, the paroxysms were becoming shorter and less severe. To convince the anxious father that they were right, Dr. Dunham read to him from Kunstadt (we suppose some voluminous driveller in homœopathic nonsense), thinking that he must, of course, be satisfied with what is put down in one of their books. But this was not satisfactory, for the parents had just lost a son that had intermittent fever under the homœopathic treatment of Dr. Wells, and a beloved daughter was now suffering under the same disease, which a continuance of homœopathic medicines for weeks had not sufficed to arrest. The parents were, of course, exceedingly anxious about